Claim 4 (as allowed)

4. A herbicidal composition comprising a herbicidally effective amount of at least one substituted aromatic thiocarboxamide of the formula (I) according to claim 1 or 2 and at least one extender and/or surfactant.

Claim 5 (as allowed)

5. A method of combating unwanted plants comprising applying to said plants and/or their habitat a herbicidally effective amount of at least one substituted aromatic thiocarboxamide of the formula (I) according to claim 1 or 2.

REMARKS

Grounds for Filing Reissue Application

MPEP 1402 states:

> "In accordance with 35 U.S.C. 251, the error upon which a reissue is based must be one which causes the patent to be "deemed wholly or partly inoperative or invalid, by reason of a defective specification or drawing, or by reason of the patentee claiming more or less than he had a right to claim in the patent...
>
> The most common bases for filing a reissue application are:
>
> (A) the claims are too narrow or too broad
> (B) the disclosure contains inaccuracies;
> (C) applicant failed to or incorrectly claimed foreign priority; and
> (D) applicant failed to make reference to or incorrectly made reference to prior co-pending applications."

The ground for filing this reissue application for U.S. Patent 6,331,507 (SN: 09/470,583) is due to an error in claim 1, i.e. the figure for (Z^3) in col. 64 does not match the figure for (Z^3) as disclosed in the specification in col. 6 (page 10 of the specification for '583). This typographical error occurred during the amendment filed on 5 December 2000 which erroneously included the current figure for (Z^3).

However, the figure for (Z^3) in the claim was clearly intended to match the figure for (Z^3) from page 10 of the specification. Page 13 of the 5 December 2000 response describes support for the amendments made and states: "Basically, Applicants have made claim 2 the main claim, and limited the definition of Z therein to Z^3 and Z^{15}, ***which appear on page 10 of the specification***, and the definitions of Q^1, R^6 and R^7 therein to those on pages 11-12 [of the specification]." (bold and italics added) As further support for this position, see the handwritten comments on page 86 of the "Mark-Up Showing Changes to Original Claims to Yeild (sic) Those in Amendment Dated 12-5-00" which is attached to the end of the 5 December 2000 amendment.

A copy of the 5 December 2000 response has been attached to this preliminary amendment.

Diligence in Filing Reissue Application

MPEP 1403 states:

> "When a reissue application is filed within 2 years from the date of the original patent, a rejection on the grounds of lack of diligence or delay in filing the reissue should not normally be made. *Ex parte Lafferty*, 190 USPQ 202 (Bd. App. 1975); but see *Rohm & Haas Co. v. Roberts Chemical Inc.*, 142 F. Supp. 499, 110 USPQ 93 (S.W. Va. 1956), *rev'd on other grounds*, 245 F.2d 693, 113 USPQ 423 (4th Cir. 1957)."

U.S. Patent 6,331,507 was issued on 18 December 2001 which is within two-years of the date of this filing.

Proof of Ownership of Assignee

Pursuant to MPEP 1410.01:

> "The assignee must establish its ownership in accordance with 37 CFR 3.73(b) by:
>
> (A) filing in the reissue application documentary evidence of a chain of title from the original owner to the assignee; or
> (B) specifying in the record of the reissue application where such evidence is recorded in the Office (e.g., reel and frame number, etc.)."

Evidence of ownership by the assignee (Bayer Aktiengesellschaft) can be found in the Notice of Recordation of Assignment, Reel 8341, Frame Number 0366, which was recorded on 28 October 1996 (which was filed in the parent application SN: 08/732,257). A copy of this Notice is attached to this communication.

Claim for Foreign Priority Under 35 U.S.C. 119(a)-(d)

Pursuant to MPEP 1417, the applicants resubmit on the attached Application Data Sheet (in lieu of on the oath and declaration) their claim for foreign priority over:

Country	Application No.	Filing Date
DE	44 15 655	4 May 1994
DE	195 00 439	19 January 1995

(Note: According to MPEP 1417, no additional certified copy is necessary)

Comments About Amendments Made

Claim 1 has been amended to substitute the structure for (Z^3) in claim 1 of U.S. Patent 6,331,507 with the structure of (Z^3) found in col. 6 of the '507 patent. It is believed that no new matter has been added.

Closing

Applicants also believe that this application is in condition for allowance. However, should any issue(s) of a minor nature remain, the Examiner is respectfully requested to telephone the undersigned at telephone number (212) 808-0700 so that the issue(s) might be promptly resolved.

Respectfully submitted,
Norris, McLaughlin & Marcus, P.A.

By: Howard C. Lee
Howard C. Lee
Reg. No. 48,104

220 East 42nd Street
30th Floor
New York, New York 10017
(212) 808-0700

Attachments: Copy of 5 December 2000 response from SN: 09/470,583

CERTIFICATE OF MAILING

I hereby certify that the foregoing Request for Reissue and Preliminary Amendment under 37 CFR 1.173(b) (pages total) is being deposited by Express Mail to the United States Patent and Trademark Office on the date indicated below:

Date: **12 December 2003**

By: Agata Glinska
Agata Glinska

I hereby certify that this correspondence is being deposited with the United States Postal Services as Express Mail Label No. EV015943054US in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231 on December 12, 2003.

NORRIS, McLAUGHLIN & MARCUS, P.A.

By Agata Glinska

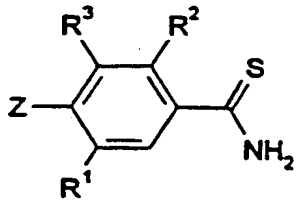
Date 12/12/2003

MARK-UP SHOWING CHANGES TO ORIGINAL CLAIMS TO YEILD THOSE IN AMENDMENT DATED 12-5-00

Patent Claims

1. CANCELLED

Substituted aromatic thiocarboxamides of the general formula (I)



(I)

in which

R^1 represents hydrogen or halogen,

R^2 represents the following group

$-A^1-A^2-A^3$

in which

A^1 represents a single bond, or represents oxygen, sulphur, -SO-, $-SO_2-$, -CO- or the group $-N-A^4-$, in which A^4 represents hydrogen, hydroxyl, alkyl, alkenyl, alkinyl, alkoxy, aryl, alkylsulphonyl or arylsulphonyl,

A^1 additionally represents in each case optionally substituted alkanediyl, alkenediyl, alkinediyl, cycloalkanediyl, cycloalkenediyl or arenediyl,

A^2 represents a single bond, or represents oxygen, sulphur, -SO-, $-SO_2-$, -CO- or the group $-N-A^4-$, in which A^4 represents hydrogen, hydroxyl, alkyl, alkenyl, alkinyl, aryl, alkoxy, alkylsulphonyl or arylsulphonyl,

USSN 09/470,583

A^2 additionally represents in each case optionally substituted alkanediyl, alkenediyl, alkinediyl, cycloalkanediyl, cycloalkenediyl or arenediyl,

A^3 represents hydrogen, hydroxyl, amino, cyano, isocyano, thiocyanato, nitro, carboxyl, carbamoyl, thiocarbamoyl, sulpho, chlorosulphonyl, halogen or represents in each case optionally substituted alkyl, alkoxy, alkylthio, alkylsulphinyl, alkylsulphonyl, alkylamino, dialkylamino, alkoxycarbonyl, dialkoxy-(thio)phosphoryl, alkenyl, alkenyloxy, alkenylamino, alkylideneamino, alkenyloxycarbonyl, alkinyl, alkinyloxy, alkinylamino, alkinyloxycarbonyl, cycloalkyl, cycloalkyloxy, cycloalkylalkyl, cycloalkylalkoxy, cycloalkylideneamino, cycloalkyloxycarbonyl, cycloalkylalkoxycarbonyl, aryl, aryloxy, arylalkyl, arylalkoxy, aryloxycarbonyl, arylalkoxycarbonyl, heterocyclyl, heterocyclylalkyl, heterocyclylalkoxy or heterocyclylalkoxycarbonyl,

R^3 represents hydrogen or halogen or together with R^2 represents an alkanediyl or an alkenediyl group which optionally contains at the beginning (or end) or within the hydrocarbon chain an oxygen atom, a sulphur atom, an SO_2 group, an NH group, an N-alkyl group, a carbonyl group and/or a thiocarbonyl group, and

Z represents in each case optionally substituted monocyclic or bicyclic, saturated or unsaturated heterocyclyl, heterocyclylamino or heterocyclylimino.

2. Substituted aromatic thiocarboxamides of the general formula (I) according to Claim 1, characterized in that

[Insert Formula (I)

wherein

R^1 represents hydrogen, fluorine, chlorine or bromine,

R^2 represents the following group

$$-A^1-A^2-A^3$$

in which

A^1 represents a single bond, or represents oxygen, sulphur, -SO-, $-SO_2-$, -CO- or the group $-N(A^4)-$, in which A^4 represents hydrogen, hydroxyl, C_1-C_4-alkyl, C_3-C_4-alkenyl, C_3-C_4-alkinyl, C_1-C_4-alkoxy, phenyl, C_1-C_4-alkylsulphonyl or phenylsulphonyl,

A^1 additionally represents in each case optionally fluorine- or chlorine-substituted C_1-C_6-alkanediyl, C_2-C_6-alkenediyl, C_2-C_6-alkinediyl, C_3-C_6-cycloalkanediyl, C_3-C_6-cycloalkenediyl or phenylene,

A^2 represents a single bond, or represents oxygen, sulphur, -SO-, $-SO_2-$, -CO- or the group $-N(A^4)-$, in which A^4 represents hydrogen, hydroxyl, C_1-C_4-alkyl, C_3-C_4-alkenyl, C_3-C_4-alkinyl, C_1-C_4-alkoxy, phenyl, C_1-C_4-alkylsulphonyl or phenylsulphonyl,

A^2 additionally represents in each case optionally fluorine- or chlorine-substituted C_1-C_6-alkanediyl, C_2-C_6-alkenediyl, C_2-C_6-alkinediyl, C_3-C_6-cycloalkanediyl, C_3-C_6-cycloalkenediyl or phenylene,

A^3 represents hydrogen, hydroxyl, amino, cyano, isocyano, thiocyanato, nitro, carboxyl, carbamoyl, thiocarbamoyl, sulpho, chlorosulphonyl, halogen, or represents in each case optionally halogen- or C_1-C_4-

alkoxy-substituted alkyl, alkoxy, alkylthio, alkylsulphinyl, alkylsulphonyl, alkylamino, dialkylamino, alkoxycarbonyl or dialkoxy(thio)phosphoryl having in each case 1 to 6 carbon atoms in the alkyl groups, or represents in each case optionally halogen-substituted alkenyl, alkenyloxy, alkenylamino, alkylideneamino, alkenyloxycarbonyl, alkinyl, alkinyloxy, alkinylamino or alkinyloxycarbonyl having in each case 2 to 6 carbon atoms in the alkenyl, alkylidene or alkinyl groups, or represents in each case optionally halogen-, cyano-, carboxyl-, C_1-C_4-alkyl- and/or C_1-C_4-alkoxy-carbonyl-substituted cycloalkyl, cycloalkyloxy, cycloalkylalkyl, cycloalkylalkoxy, cycloalkylideneamino, cycloalkyloxycarbonyl or cycloalkylalkoxycarbonyl having in each case 3 to 6 carbon atoms in the cycloalkyl groups and optionally 1 to 4 carbon atoms in the alkyl groups, or represents in each case optionally nitro-, cyano-, carboxyl-, halogen-, C_1-C_4-alkyl-, C_1-C_4-halogenoalkyl-, C_1-C_4-alkyloxy-, C_1-C_4-halogenoalkyloxy- and/or C_1-C_4-alkoxy-carbonyl-substituted phenyl, phenyloxy, phenyl-C_1-C_4-alkyl, phenyl-C_1-C_4-alkoxy, phenyloxycarbonyl or phenyl-C_1-C_4-alkoxycarbonyl, (in each case optionally totally or partially hydrogenated) pyrrolyl, pyrazolyl, imidazolyl, triazolyl, furyl, thienyl, oxazolyl, isoxazolyl, thiazolyl, isothiazolyl, oxadiazolyl, thiadiazolyl, pyridinyl, pyrimidinyl, triazinyl, pyrazolyl-C_1-C_4-alkyl, furyl-C_1-C_4-alkyl, thienyl-C_1-C_4-alkyl, oxazolyl-C_1-C_4-alkyl, isoxazole-C_1-C_4-alkyl, thiazole-C_1-C_4-alkyl, pyridinyl-C_1-C_4-alkyl, pyrimidinyl-C_1-C_4-alkyl, pyrazolylmethoxy or furylmethoxy, or represents perhydropyranylmethoxy

or pyridylmethoxy,

R^3 represents hydrogen, fluorine, chlorine or bromine or together with R^2 represents an alkanediyl or alkenediyl group having in each case up to 4 carbon atoms which optionally contains at the beginning (or end) or within the hydrocarbon chain an oxygen atom, a sulphur atom, an SO_2 group, an NH group, an N-C_1-C_4-alkyl group, a carbonyl group and/or a thiocarbonyl group, and

Z represents ~~in each case monocyclic or bicyclic, saturated~~ or unsaturated heterocyclyl, heterocyclylamino or heterocyclylimino having in each case 2 to 6 carbon atoms and 1 to 4 nitrogen atoms in the heterocyclic ring system, which optionally additionally contains an oxygen atom or sulphur atom and/or optionally up to three groups from the series -CO-, -CS-, -SO- and/or SO_2-, and which is optionally substituted by one or more groups from the series nitro, hydroxyl, amino, cyano, carboxyl, carbamoyl, thiocarbamoyl, halogen, C_1-C_6-alkyl (which is optionally substituted by halogen or C_1-C_4-alkoxy), C_2-C_6-alkenyl or C_2-C_6-alkinyl (which are in each case optionally substituted by halogen), C_1-C_6-alkoxy or C_1-C_6-alkoxy-carbonyl (which are in each case optionally substituted by halogen or C_1-C_4-alkoxy), C_2-C_6-alkenyloxy or C_2-C_6-alkinyloxy (which are in each case optionally substituted by halogen), C_1-C_6-alkylthio, C_2-C_6-alkenylthio or C_2-C_6-alkinylthio (which are in each case optionally substituted by halogen), C_1-C_6-alkylamino or di-(C_1-C_4-alkyl)-amino, C_3-C_6-cycloalkyl or C_3-C_6-cycloalkyl-C_1-C_4-alkyl (which are in each case optionally substituted by halogen and/or C_1-C_4-alkyl), phenyl, phenoxy, phenylthio, phenylsulphinyl, phenylsulphonyl or phenylamino (which are in each case optionally substituted by nitro, cyano, halogen, C_1-C_4-alkyl,

Insert => Z^3 and Z^{15} from page 10 and definitions of Q^1, R^6 and R^7 from pages 11-12

C_1-C_4-halogenoalkyl, C_1-C_4-alkyloxy, C_1-C_4-halogenoalkyloxy and/or C_1-C_4-alkoxy-carbonyl).

3. Substituted aromatic thiocarboxamides of the general formula (I) according to Claim 1, characterized in that wherein

R^1 represents hydrogen, fluorine or chlorine,

R^2 represents the following group

$$-A^1-A^2-A^3$$

in which

A^1 represents a single bond, or represents oxygen, sulphur, -SO-, $-SO_2$-, -CO- or the group $-N(A^4)$-, in which A^4 represents hydrogen, hydroxyl, methyl, ethyl, n- or i-propyl, methoxy, ethoxy, n- or i-propoxy, methylsulphonyl or ethylsulphonyl,

A^1 additionally represents methylene, ethane-1,1-diyl, ethane-1,2-diyl, propane-1,1-diyl, propane-1,2-diyl, propane-1,3-diyl, ethene-1,2-diyl, propene-1,2-diyl, propene-1,3-diyl, ethine-1,2-diyl, propine-1,2-diyl or propine-1,3-diyl,

A^2 represents a single bond, or represents oxygen, sulphur, -SO-, $-SO_2$-, -CO- or the group $-N(A^4)$-, in which A^4 represents hydrogen, hydroxyl, methyl, ethyl, n- or i-propyl, methoxy, ethoxy, n- or i-propoxy, methylsulphonyl, ethylsulphonyl, n- or i-propylsulphonyl or phenylsulphonyl,

A^2 additionally represents methylene, ethane-1,1-diyl, ethane-1,2-diyl, propane-1,1-diyl, propane-1,2-diyl,

propane-1,3-diyl, ethene-1,2-diyl, propene-1,2-diyl, propene-1,3-diyl, ethine-1,2-diyl, propine-1,2-diyl or propine-1,3-diyl,

A^3 represents hydrogen, hydroxyl, amino, cyano, nitro, carboxyl, carbamoyl, sulpho, fluorine, chlorine, bromine, or represents in each case optionally fluorine-, chlorine-, methoxy- or ethoxy-substituted methyl, ethyl, n- or i-propyl, n-, i-, s- or t-butyl, n-, i-, s- or t-pentyl, methoxy, ethoxy, n- or i-propoxy, n-, i-, s- or t-butoxy, n-, i-, s- or t-pentyloxy, methylthio, ethylthio, n- or i-propylthio, n-, i-, s- or t-butylthio, methylsulphinyl, ethylsulphinyl, n- or i-propylsulphinyl, methylsulphonyl, ethylsulphonyl, n- or i-propylsulphonyl, methylamino, ethylamino, n- or i-propylamino, n-, i-, s- or t-butylamino, dimethylamino, diethylamino, methoxycarbonyl, ethoxycarbonyl, n- or i-propoxycarbonyl, dimethoxyphosphoryl, diethoxyphosphoryl, dipropoxyphosphoryl or diisopropoxyphosphoryl, or represents in each case optionally fluorine- or chlorine-substituted propenyl, butenyl, propenyloxy, butenyloxy, propenylamino, butenylamino, propylideneamino, butylideneamino, propenyloxycarbonyl, butenyloxycarbonyl, propinyl, butinyl, propinyloxy, butinyloxy, propinylamino, butinylamino, propinyloxycarbonyl or butinyloxycarbonyl, or represents in each case optionally fluorine-, chlorine-, cyano-, carboxyl-, methyl-, ethyl-, n- or i-propyl-, methoxycarbonyl- or ethoxycarbonyl-substituted cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cyclopropyloxy, cyclobutyloxy, cyclopentyloxy, cyclohexyloxy, cyclopropylmethyl,

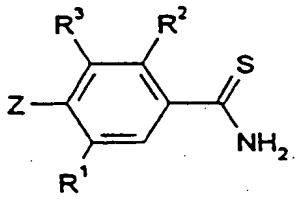
cyclobutylmethyl, cyclopentylmethyl, cyclohexylmethyl, cyclopropylmethoxy, cyclobutylmethoxy, cyclopentylmethoxy, cyclohexylmethoxy, cyclopentylideneamino, cyclohexylideneamino, cyclopentyloxycarbonyl, cyclohexyloxycarbonyl, cyclopentylmethoxycarbonyl or cyclohexylmethoxycarbonyl, or represents in each case optionally nitro-, cyano-, carboxyl-, fluorine-, chlorine-, bromine-, methyl-, ethyl-, n- or i-propyl-, trifluoromethyl-, methoxy-, ethoxy-, n- or i-propoxy-, difluoromethoxy-, trifluoromethoxy-, methoxycarbonyl- and/or ethoxycarbonyl-substituted phenyl, phenyloxy, benzyl, phenylethyl, benzyloxy, phenyloxycarbonyl, benzyloxycarbonyl, (in each case optionally completely or partially hydrogenated) pyrrolyl, pyrazolyl, imidazolyl, triazolyl, furyl, thienyl, oxazolyl, isoxazolyl, thiazolyl, isothiazolyl, oxadiazolyl, thiadiazolyl, pyridinyl, pyrimidinyl, triazinyl, pyrazolylmethyl, furylmethyl, thienylmethyl, oxazolylmethyl, isoxazolemethyl, thiazolmethyl, pyridinylmethyl, pyrimidinylmethyl, pyrazolylmethoxy, furylmethoxy or pyridylmethoxy, and

R^3 represents hydrogen, fluorine or chlorine or together with R^2 represents an alkanediyl or alkenediyl group having in each case 1 to 3 carbon atoms which optionally contains at the beginning (or end) or within the hydrocarbon chain an oxygen atom, a sulphur atom, an NH group, an N-methyl group, a carbonyl group and/or a thiocarbonyl group, ~~and~~

~~Z represents in each case monocyclic or bicyclic, saturated or~~ unsaturated heterocyclyl, heterocyclylamino ~~or~~ heterocyclylimino having in each case ~~2 to 5~~ carbon atoms and 1 to

3 nitrogen atoms in the heterocyclic ring system, which optionally additionally contains an oxygen atom or sulphur atom and/or optionally up to two groups from the series -CO-, -CS-, -SO- and/or SO_2-, and which is optionally substituted by one or more groups from the series nitro, hydroxyl, amino, cyano, carboxyl, carbamoyl, thiocarbamoyl, fluorine, chlorine, bromine; methyl, ethyl, n- or i-propyl, n-, i-, s- or t-butyl, (which are optionally substituted by fluorine, chlorine, methoxy or ethoxy); propenyl, butenyl, propinyl or butinyl (which are in each case optionally substituted by fluorine or chlorine); methoxy, ethoxy, n- or i-propoxy, n-, i-, s- or t-butoxy, methoxycarbonyl or ethoxycarbonyl (which are in each case optionally substituted by fluorine, chlorine, methoxy or ethoxy); propenyloxy, butenyloxy, propinyloxy or butinyloxy (which are optionally substituted by fluorine or chlorine); methylthio, ethylthio, n- or i-propylthio, n-, i-, s- or t-butylthio, propenylthio, butenylthio, propinylthio or butinylthio (which are in each case optionally substituted by fluorine or chlorine); methylamino, ethylamino, n- or i-propylamino, n-, i-, s- or t-butylamino, dimethylamino or diethylamino; cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cyclopropylmethyl, cyclobutylmethyl, cyclopentylmethyl or cyclohexylmethyl (which are in each case optionally substituted by fluorine, chlorine, methyl, ethyl, n- or i-propyl), phenyl, phenoxy, phenylthio, phenylsulphinyl, phenylsulphonyl, or phenylamino (which are in each case optionally substituted by nitro, cyano, fluorine, chlorine, bromine, methyl, ethyl, n- or i-propyl, trifluoromethyl, methoxy, ethoxy, n- or i-propoxy, difluoromethoxy, trifluoromethoxy, methoxycarbonyl or ethoxycarbonyl).

4. Process for the preparation of substituted aromatic thiocarboxamides of the general formula (I)

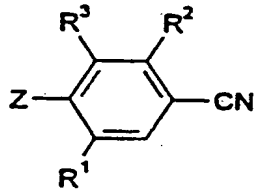


(I)

in which R^1, R^2, R^3 and Z have the meanings given in Claim 2,

comprising reacting a

~~characterized in that~~ substituted aromatic nitriles of the ~~general~~ formula (II)



(II)

in which

R^1, R^2, R^3 and Z have the meanings indicated above,

~~are reacted~~ with hydrogen sulphide (H_2S) or with thioacetamide, optionally in the presence of a reaction auxiliary and optionally in the presence of a diluent.

CANCEL 5. Method of combatting unwanted plants, characterized in that substituted aromatic thiocarboxamides of the general formula (I) according to Claims 1 to 4 are caused to act on unwanted plants and/or their habitat.

CANCEL 6. Use of substituted aromatic thiocarboxamides of the general formula (I) according to Claims 1 to 4 for combatting unwanted plants.

CANCEL 7. Process for the production of herbicidal compositions, characterized in that substituted aromatic thiocarboxamides of the general formula (I)

according to Claims 1 to 4 are mixed with extenders and/or surfactants.

CANCEL 8. Herbicidal compositions, characterized by a content of at least one substituted aromatic thiocarboxamide of the general formula (I) according to Claims 1 to 4.

Insert claims 9 & 10.

Bayer 9714.1-KGB
Le A 30 388-US-01 Kri/ga

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANTS	:	KARL-HEINZ LINKER, ET AL.
SERIAL NO.	:	09/470,583
FILED	:	December 22, 1999
FOR	:	SUBSTITUTED AROMATIC THIOCARBOXYLIC ACID AMIDES AND THEIR USE AS HERBICIDES
ART UNIT	:	1624
EXAMINER	:	T. Schroeder

December 5, 2000

Hon. Commissioner of Patents
Washington, D.C. 20231

AMENDMENT UNDER 37 CFR § 1.111

SIR:

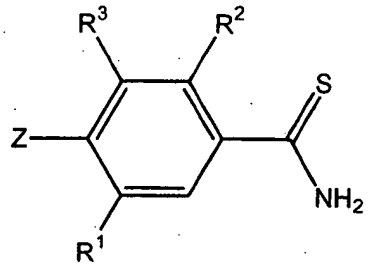
In response to the Office Action dated September 5, 2000, please amend the above-identified application as follows:

IN THE CLAIMS:

Cancel claim 1.

Reword claims 2-4 to read as follows:

2. A substituted aromatic thiocarboxamide of the formula (I)



(I)

wherein

R^1 represents hydrogen, fluorine, chlorine or bromine,

R^2 represents the following group

$$-A^1-A^2-A^3$$

in which

A^1 represents a single bond, or represents oxygen, sulphur, -SO-, $-SO_2-$, -CO- or the group $-N(A^4)-$, in which A^4 represents hydrogen, hydroxyl, C_1-C_4-alkyl, C_3-C_4-alkenyl, C_3-C_4-alkinyl, C_1-C_4-alkoxy, phenyl, C_1-C_4-alkylsulphonyl or phenylsulphonyl,

A^1 additionally represents in each case optionally fluorine- or chlorine-substituted C_1-C_6-alkanediyl, C_2-C_6-alkenediyl, C_2-C_6-alkinediyl, C_3-C_6-cycloalkanediyl, C_3-C_6-cycloalkenediyl or phenylene,

A^2 represents a single bond, or represents oxygen, sulphur, -SO-, $-SO_2$-, -CO- or the group $-N(A^4)$-, in which A^4 represents hydrogen, hydroxyl, C_1-C_4-alkyl, C_3-C_4-alkenyl, C_3-C_4-alkinyl, C_1-C_4-alkoxy, phenyl, C_1-C_4-alkylsulphonyl or phenylsulphonyl,

A^2 additionally represents in each case optionally fluorine- or chlorine-substituted C_1-C_6-alkanediyl, C_2-C_6-alkenediyl, C_2-C_6-alkinediyl, C_3-C_6-cycloalkanediyl, C_3-C_6-cycloalkenediyl or phenylene,

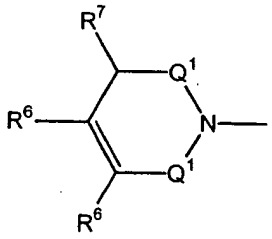
A^3 represents hydrogen, hydroxyl, amino, cyano, isocyano, thiocyanato, nitro, carboxyl, carbamoyl, thiocarbamoyl, sulpho, chlorosulphonyl, halogen, or represents in each case optionally halogen- or C_1-C_4-alkoxy-substituted alkyl, alkoxy, alkylthio, alkylsulphinyl, alkylsulphonyl, alkylamino, dialkylamino, alkoxycarbonyl or dialkoxy(thio)phosphoryl having in each case 1

to 6 carbon atoms in the alkyl groups, or represents in each case optionally halogen-substituted alkenyl, alkenyloxy, alkenylamino, alkylideneamino, alkenyloxycarbonyl, alkinyl, alkinyloxy, alkinylamino or alkinyloxycarbonyl having in each case 2 to 6 carbon atoms in the alkenyl, alkylidene or alkinyl groups, or represents in each case optionally halogen-, cyano-, carboxyl-, C_1-C_4-alkyl- and/or C_1-C_4-alkoxy-carbonyl-substituted cycloalkyl, cycloalkyloxy, cycloalkylalkyl, cycloalkylalkoxy, cycloalkylideneamino, cycloalkyloxycarbonyl or cycloalkylalkoxycarbonyl having in each case 3 to 6 carbon atoms in the cycloalkyl groups and optionally 1 to 4 carbon atoms in the alkyl groups, or represents in each case optionally nitro-, cyano-, carboxyl-, halogen-, C_1-C_4-alkyl-, C_1-C_4-halogenoalkyl-, C_1-C_4-alkyloxy-, C_1-C_4-halogenoalkyloxy- and/or C_1-C_4-alkoxy-carbonyl-substituted phenyl, phenyloxy, phenyl-C_1-C_4-alkyl, phenyl-C_1-C_4-alkoxy, phenyloxycarbonyl or phenyl-C_1-C_4-alkoxycarbonyl, (in each case optionally totally or partially hydrogenated) pyrrolyl, pyrazolyl, imidazolyl, triazolyl, furyl, thienyl, oxazolyl, isoxazolyl, thiazolyl, isothiazolyl, oxadiazolyl, thiadiazolyl, pyridinyl, pyrimidinyl, triazinyl, pyrazolyl-C_1-C_4-alkyl, furyl-C_1-C_4-alkyl, thienyl-C_1-C_4-alkyl, oxazolyl-C_1-C_4-alkyl, isoxazole-C_1-C_4-alkyl,

thiazole-C_1-C_4-alkyl, pyridinyl-C_1-C_4-alkyl, pyrimidinyl-C_1-C_4-alkyl, pyrazolylmethoxy or furylmethoxy, or represents perhydropyranylmethoxy or pyridylmethoxy,

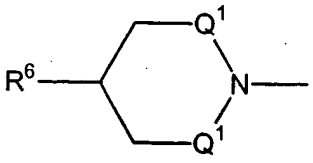
R^3 represents hydrogen, fluorine, chlorine or bromine or together with R^2 represents an alkanediyl or alkenediyl group having in each case up to 4 carbon atoms which optionally contains at the beginning (or end) or within the hydrocarbon chain an oxygen atom, a sulphur atom, an SO_2 group, an NH group, an N-C_1-C_4-alkyl group, a carbonyl group and/or a thiocarbonyl group, and

Z represents Z^3:



(Z^3)

or Z^{15}:



(Z^{15})

wherein

Q^1 represents a group from the series -CO-, -CS-, $-CH_2-$, -CH(OH)-, -CHCl-, -CHBr-, $-C(=CH_2)-$, -C(=CHF)-, $-C(=CF_2)-$, -C(=CHCl)-, -C(=CHBr)-, $-C(=CHOCHF_2)-$, $-C(=CHOCF_3)-$, $-C(=CHOCH_2CF_3)-$,

R^6 represents hydrogen, amino, nitro, cyano, carboxyl, carbamoyl, fluorine, chlorine, bromine, methyl, ethyl, n- or i-propyl, cyclopropyl, difluoromethyl, trifluoromethyl, chlorodifluoromethyl, methoxy, ethoxy, n- or i-propoxy, difluoromethoxy, trifluoromethoxy, chlorodifluoro-methoxy, methylthio, ethylthio, n- or i-propylthio, difluoromethylthio, trifluoromethylthio, chlorodifluoromethylthio, methylamino, ethylamino, n- or i-propylamino, dimethylamino, diethylamino, methoxycarbonyl or ethoxycarbonyl, and

R^7 represents hydrogen, hydroxyl, amino, cyano, methyl, ethyl, n- or i-propyl, difluoromethyl, methoxy, ethoxy, n- or i-propoxy.

3. A substituted aromatic thiocarboxamide of the formula (I) according to Claim 2, wherein

R^1 represents hydrogen, fluorine or chlorine,

R^2 represents the following group

$$-A^1-A^2-A^3$$

in which

A^1 represents a single bond, or represents oxygen, sulphur, -SO-, $-SO_2-$, -CO- or the group $-N(A^4)-$, in which A^4 represents hydrogen, hydroxyl, methyl, ethyl, n- or i-propyl, methoxy, ethoxy, n- or i-propoxy, methylsulphonyl or ethylsulphonyl,

A^1 additionally represents methylene, ethane-1,1-diyl, ethane-1,2-diyl, propane-1,1-diyl, propane-1,2-diyl, propane-1,3-diyl, ethene-1,2-

diyl, propene-1,2-diyl, propene-1,3-diyl, ethine-1,2-diyl, propine-1,2-diyl or propine-1,3-diyl,

A^2 represents a single bond, or represents oxygen, sulphur, -SO-, $-SO_2-$, -CO- or the group $-N(A^4)-$, in which A^4 represents hydrogen, hydroxyl, methyl, ethyl, n- or i-propyl, methoxy, ethoxy, n- or i-propoxy, methylsulphonyl, ethylsulphonyl, n- or i-propylsulphonyl or phenylsulphonyl,

A^2 aditionally represents methylene, ethane-1,1-diyl, ethane-1,2-diyl, propane-1,1-diyl, propane-1,2-diyl, propane-1,3-diyl, ethene-1,2-diyl, propene-1,2-diyl, propene-1,3-diyl, ethine-1,2-diyl, propine-1,2-diyl or propine-1,3-diyl,

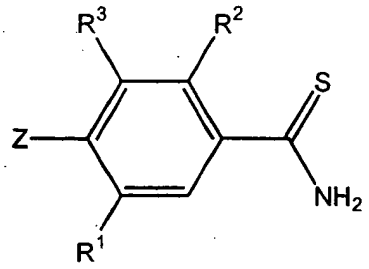
A^3 represents hydorgen, hydroxyl, amino, cyano, nitro, carboxyl, carbamoyl, sulpho, fluorine, chlorine, bromine, or represents in each case optionally fluorine-, chlorine-, methoxy- or ethoxy-substituted methyl, ethyl, n- or i-propyl, n-, i-, s- or t-butyl, n-, i-, s- or t-pentyl, methoxy, ethoxy, n- or i-propoxy, n-, i-, s- or t-butoxy, n-, i-, s- or t-pentyloxy, methylthio, ethylthio, n- or i-propylthio, n-, i-, s-, or t-butylthio, methylsulphinyl, ethylsulphinyl, n- or i-

propylsulphinyl, methylsulphonyl, ethylsulphonyl, n- or i-propylsulphonyl, methylamino, ethylamino, n- or i-propylamino, n-, i-, s- or t-butylamino, dimethylamino, diethylamino, methoxycarbonyl, ethoxycarbonyl, n- or i-propoxycarbonyl, dimethoxy-phosphoryl, diethoxyphosphoryl, dipropoxy-phosphoryl or diisopropoxyphosphoryl, or represents in each case optionally fluorine- or chlorine- substituted propenyl, butenyl, propenyloxy, butenyloxy, propenylamino, butenylamino, propylideneamino, butylideneamino, propenyloxycarbonyl, butenyloxycarbonyl, propinyl, butinyl, propinyloxy, butinyloxy, propinylamino, butinylamino, propinyloxycarbonyl or butinyloxycarbonyl, or represents in each case optionally fluorine-, chlorine-, cyano-, carboxyl-, methyl-, ethyl-, n- or i-propyl-, methoxycarbonyl- or ethoxycarbonyl-substituted cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cyclopropyloxy, cyclobutyloxy, cyclopentyloxy, cyclohexyloxy, cyclopropylmethyl, cyclobutylmethyl, cyclopentylmethyl, cyclohexylmethyl, cyclopropylmethoxy, cyclobutylmethoxy, cylcopentylmethoxy, cyclohexylmethoxy, cyclopentylideneamino, cyclohexylideneamino, cyclopentyloxy-carbonyl, cyclohexyloxycarbonyl, cyclopentylmethoxycarbonyl or cyclohexylmethoxycarbonyl, or represents in each case optionally

nitro-, cyano-, carboxyl-, fluorine-, chlorine-, bromine-, methyl-, ethyl-, n- or i-propyl-, thifluoromethyl-, methoxy-, ethoxy-, n- or i-propoxy-, difluoromethoxy-, trifluoromethoxy-, methoxycarbonyl- and/or ethoxycarbonyl-substituted phenyl, phenyloxy, benzyl, phenylethyl, benzyloxy, phenyloxycarbonyl, benzyloxycarbonyl, (in each case optionally completely or partially hydrogenated) pyrrolyl, pyrazolyl, imidazolyl, triazolyl, furyl, thienyl, oxazolyl, isoxazolyl, thiazolyl, isothiazolyl, oxadiazolyl, thiadiazolyl, pyridinyl, pyrimidinyl, triazinyl, pyrazolylmethyl, furylmethyl, thienylmethyl, oxazolylmethyl, isoxazolemethyl, thiazolmethyl, pyridinylmethyl, pyrimidinylmethyl, pyrazolylmethoxy, furylmethoxy or pyridylmethoxy, and

R^3 represents hydrogen, fluorine or chlorine or together with R^2 represents an alkanediyl or alkenediyl group having in each case 1 to 3 carbon atoms which optionally contains at the beginning (or end) or within the hydrocarbon chain an oxygen atom, a sulphur atom, an NH group, an N-methyl group, a carbonyl group and/or a thiocarbonyl group.

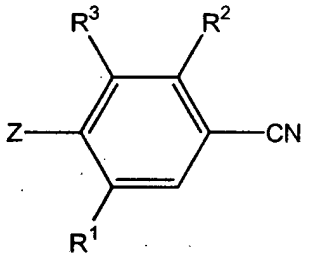
4. A process for the preparation of a substituted aromatic thiocarboxamide of the formula (I)



(I)

in which R^1, R^2, R^3 and Z have the meanings given in Claim 2,

comprising reacting a substituted aromatic nitrile of the formula (II)



(II)

in which

R^1, R^2, R^3 and Z have the meanings indicated above,

with hydrogen sulphide (H_2S) or with thioacetamide, optionally in the presence of a reaction auxiliary and optionally in the presence of a diluent.

Cancel claims 5-8 and substitute:

9. A herbicidal composition comprising a herbicidally effective amount of at least one substituted aromatic thiocarboxamide of the formula (I) according to Claim 2 or 3 and at least one extender and/or surfactant.

10. A method of combatting unwanted plants comprising applying to said plants and/or their habitat a herbicidally effective amount of at least one substituted aromatic thiocarboxamide of the formula (I) according to Claim 2 or 3.

CONDITIONAL PETITION FOR EXTENSION OF TIME

If entry and consideration of the amendments above requires an extension of time, Applicants respectfully request that this be considered a petition therefor. The Assistant Commissioner is authorized to charge any fee(s) due in this connection to Deposit Account No. 14-1263.

ADDITIONAL FEE

Please charge any insufficiency of fees, or credit any excess, to Deposit Account No. 14-1263.

REMARKS

Applicants respectfully request reconsideration and allowance of this application in view of the amendments above and the following comments.

This amendment is being filed in accordance with the new rules of practice. Changes have been made in claims 2-4. A clean version of claims 2-4 appears above. A mark-up showing the changes to claims 2-4 in red pen is attached for the Examiner's convenience.

Basically, Applicants have made claim 2 the main claim, and limited the definition of Z therein to Z^3 and Z^{15}, which appear on page 10 of the specification, and the definitions of Q^1, R^6 and R^7 therein to those on pages 11-12. No new matter is added by these amendments. In this regard, Applicants add that the new claims are supported by Examples Nos. 19, 20, 21, 24-27 and 52-54 in Table 1, and Example II-3 and II-4.

Claims 1-5 were rejected under the judicially created doctrine of double patenting over claims 1-5 of U.S. Patent No. 6,077,813. In response, Applicants respectfully request that this issue be held in abeyance until allowable subject matter is indicated, at which time Applicants will take appropriate action, i.e., prove patentable distinctness or file a terminal disclaimer.

Claims 1-4 were rejected under 35 U.S. C §102(b) as being clearly anticipated by Sircar

et al. (US 4,734,415).

Claims 1-3 were rejected under 35 U.S.C. §102(b and e) as being clearly anticipated by Chihiro et al. (WO 93/24472).

Claims 1-3 were rejected under 35 U.S.C. §102(b) as being clearly anticipated by Kerdesky et al. (US 5,124,342).

Claims 1-3 were rejected under 35 U.S. C. §102(b) as being clearly anticipated by Nomoto et al. (JP 02193994).

Claims 1-4 were rejected under 35 U.S. C. §102(b) as being clearly anticipated by Brown et al. (US 4,503,054).

Claims 1-4 were rejected under 35 U.S.C. §102(b) as being clearly anticipated by Allen, Jr. et al. (US 4,112,095).

Claims 1-4 were rejected under 35 U.S. C. §102(b) as being clearly anticipated by Allen, Jr. et al. (US 4,525,791).

Claims 1-3 and 8 were rejected under 35 U.S.C. §102(b) as being clearly anticipated by

Sarett et al. (GB 1,212,858).

Claims 1-4 were rejected under 35 U.S.C. §102(b) as being clearly anticipated by Sircar et al. (Cardiotonic Agents., J. Med. Chem., 30(11), pp. 1955-1962, (1987)).

Claims 1-8 were rejected under 35 U.S.C. §103(a) as being unpatentable over Allen, Jr. et al. (US 4,112,095).

Claims 1-8 were rejected under 35 U.S.C. §103(a) as being unpatentable over Allen, Jr. et al. (GB 1,215,858).

In response to *all* of the foregoing prior art rejections, Applicants submit that the amendments above render the instant claims novel and unobvious in view of the cited prior art, since the cited references are not believed to teach the instant Z values. Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw each of these rejections.

Claims 1-8 were rejected under 35 U.S. C. §112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. In response, Applicants submit that the amendments above overcome this rejection as well. Main claim 2 in the definition of A^3 and Z recites specific, contemplated aryl and

heterocyclyl radicals, and the Examiner has not made out a *prima facie* case that the scope sought is broader than the enabling disclosure. In this regard, Applicants would remind the Examiner that the allegations in the specification must be accepted as true in the absence of reasonable doubts supported by sound technical reasoning or evidence. *In re Marzocchi et al.,* 169 USPQ 367, 369 (CCPA 1971). Mere breadth of the claims, in and of itself, does not provide reasonable doubts as to the scope of the enablement, particularly where, as here, the utility is one that normally supports a broad range of compounds being effective.

Claims 1-8 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In response, Applicants point out that "-N-A^4-" has been changed to – – -N(A^4)- – – to make clear that A^4 is a substituent on the nitrogen atom. With respect to "alkinediyl," Applicants point out that this means an alkine group, i.e., a hydrocarbon group containing a carbon-carbon triple bond, which is divalent, i.e., can be bonded to two other groups.

Claim 6 was rejected under 35 U.S.C. §101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. In response, Applicants point out that claim 6 is canceled in favor of new claim 10, which is a proper method claim.

Applicants believe that the foregoing constitutes a bona fide response to all outstanding objections and rejections.

Applicants also believe that this application is in condition for immediate allowance. However, should any issue(s) of a minor nature remain, the Examiner is respectfully requested to telephone the undersigned at telephone number (212) 808-0700 so that the issue(s) might be promptly resolved.

Early and favorable action is earnestly solicited.

Respectfully submitted,

NORRIS McLAUGHLIN & MARCUS, P.A.

By _____
Kurt G. Briscoe
Reg. No. 33,141

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CERTIFICATE OF MAILING

I hereby certify that the foregoing Amendment under 37 CFR § 1.111 is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Hon. Commissioner of Patents, Washington, D.C. 20231, on the date indicated below:

Date: December 5, 2000

By _____
Kurt G. Briscoe